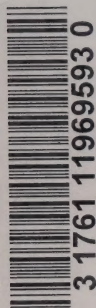


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Winter Driving



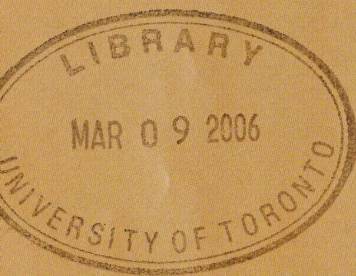
Be Prepared, Be Safe!



Ontario



Consider using
winter tires.



Driving and Winter

Stay alert, slow down, and stay in control — the three key elements to safe winter driving. Drive according to current road and weather conditions. Keep a safe distance between you and the vehicle in front of you. Avoid situations where you may have to brake suddenly on a slippery surface.

Be Prepared — Driver's Checklist

Get your vehicle winter-ready with a **maintenance check-up**. Don't wait for winter to have your battery, belts, hoses, radiator, oil, lights, brakes, exhaust system, heater/defroster, wipers, and ignition system checked.

The condition of your vehicle's tires is important. Worn and damaged tires can hamper your ability to drive safely. Have them checked or replaced before winter begins. Remember to check tire air pressure frequently, as it decreases in colder weather.

While regular or "all-season" tires, including wide and high-performance tires, may be adequate in some areas, they may not be suitable for driving in the snowbelt regions of southern Ontario and throughout the north. If you live and drive in these areas, consider using **winter tires**. They improve driving safety by providing better traction and handling through snow, slush, and on ice. Installing four winter tires provides greater control and stability. Never mix tires of different tread, size and construction.

Check weather and travel conditions before heading out. Don't take chances if the weather is bad. Allow yourself extra time for travel, or wait until conditions improve. Call the Ministry of Transportation's information number on road conditions, listed in your local phone directory, or see the "Road-Ready and Weather-Wise" section of this booklet.

If you are travelling a long distance, **plan your route** ahead of time. Let someone know of your destination and expected time of arrival.

Wear **comfortable clothing** that doesn't restrict your movement while at the wheel. Keep warm clothing for getting out of your vehicle.

Clear snow and ice from all windows, lights, mirrors, and the roof. After starting your vehicle, wait for the fog to clear from the interior of the windows so you will have good visibility all around.

Make sure your vehicle is **mechanically ready** for the rigours of winter and keep your gas tank sufficiently full — at least half a tank is recommended.

Make sure you have **sufficient windshield washer fluid** in the reservoir and that it is rated in the -40°C temperature range. Keep an extra jug in the vehicle.

If you are in an area with cell phone service and have a **cell phone**, use it only when necessary. When you need help, pull well off of the road to make or receive a call. **Remember, dialing *OPP will connect you to the nearest Ontario Provincial Police communications centre.**

PLAY IT SAFE!

Severe winter driving conditions may make you nervous, uncomfortable, or fearful. Stay off the road unless your trip is absolutely necessary. Proper preparation and the right skills will help you face the challenge of winter driving.



Stay alert,
slow down
and stay in
control.

Turn on your
vehicle's full
lighting
system in
poor visibility.

On The Road

Visibility

It is critical for drivers to see and be seen in low light conditions, and when blowing snow and white-outs impair your visibility. Whenever visibility is poor, turn on your vehicle's full lighting system.

Spacing

It takes longer to stop on a slippery road. It's important to leave plenty of space between you and the vehicle ahead. A guide to safe spacing under normal driving conditions is the two-second rule. In winter, and especially during poor weather conditions, double the two-second rule.

Two second rule:

1. Pick a marker on the road ahead, such as a road sign or telephone pole.
2. When the rear of the vehicle ahead passes the marker, count "one thousand and one, one thousand and two".
3. When the front of your vehicle reaches the marker, stop counting. If you reach the marker before you count "one thousand and two," you are following too closely.

Braking

Make sure you know how to use your braking system in all weather and road conditions. Consider taking an advanced driving course that teaches emergency driving skills.

Skidding

In a skid, it's important to regain control of your vehicle, especially if it skids sideways. To do this, decelerate by taking your foot off the brake, step on the clutch or shift to neutral, then look where you want your vehicle to go and steer in that direction.

Snowy Roads

Snow on a road may be hard-packed and slippery as ice. It can also be rutted and full of hard tracks and gullies. Or it can be smooth and soft. Wet snow can make for slushy roads. Heavy slush can build up in the wheel wells of your vehicle and can affect your ability to steer. Remember, look far ahead as you drive, so you can recognize hazards and have plenty of time to respond. Adjust your driving to the road and weather conditions. Slow down and avoid sudden turns of the steering wheel, and sudden braking and accelerating, which could cause a skid.

Ice

Be careful when approaching shaded areas, bridges, and overpasses, as these sections of road freeze much sooner in cold weather and stay frozen long after the sun has risen. Watch out for black ice, areas of the road that appear black and shiny, as they can cause your vehicle to suddenly lose traction. Slow down, keep your foot off the brake, and be ready to shift to neutral or step on the clutch as your vehicle crosses these areas.

Stopping Distances

In winter driving conditions, it takes all vehicles longer to stop on snow-covered roads. Travelling at 90 kilometres per hour, the stopping distance for the average passenger vehicle on loose snow is 213 metres (697 ft.) or 54 car lengths, compared to 121 meters (396 ft.) or 30 car lengths on dry roads. For the average commercial vehicle, the stopping distance jumps to 304 metres (996 ft.) or 14 tractor-trailer lengths.

Snow Spray

On snow-covered highways, large trucks and buses can blow snow onto your windshield leading to a sudden loss of visibility. Always drive defensively and leave enough space to avoid their snow spray.

BE PREPARED

To ensure you are prepared to handle winter road conditions, consider an advanced driver-training course that teaches emergency driving skills.



Know what
to do if it
happens
to you.

The Unexpected

If you get stuck or stranded, don't panic. Stay with your vehicle for safety and warmth. Wait for help to arrive. If you are in an area with cell phone service and have a cell phone, call for help. **Remember, dialing *OPP will connect you to the nearest Ontario Provincial Police communications centre.**

Be careful if you have to get out of your vehicle when on the shoulder of a busy road. If possible, use the door away from traffic.

If you attempt to free your vehicle from the snow, be careful. Dress warmly, shovel slowly, and do not overexert yourself. Do not attempt to shovel or push your vehicle if you have a medical condition. Body heat is retained when clothing is kept dry. Wet clothing, due to the weather or perspiration, can lead to a dangerous loss of body heat.

Draw attention to your vehicle. Use emergency flashers, flares, or a Call Police sign. Run your motor sparingly. Be careful of exhaust fumes. For fresh air, slightly open a window away from the wind. You may have to exit your vehicle occasionally to make sure the exhaust pipe is clear of drifting snow before running the engine.



Winter Driving Survival Kit

It's a good idea to keep a winter survival kit in your vehicle. Having essential supplies can provide some comfort and safety for you and your passengers should you become stranded. Recommended items:

- Ice scraper/snowbrush
- Shovel
- Sand or other traction aid
- Tow rope or chain
- Booster cables
- Road flares or warning lights
- Gas line antifreeze
- Flashlight and batteries
- First aid kit
- Fire extinguisher
- Small tool kit
- Extra clothing and footwear
- Blanket
- Non-perishable energy foods – e.g., chocolate or granola bars, juice, instant coffee, tea, soup, bottled water
- Candle and a small tin can
- Matches

In blizzard conditions, especially overnight, make sure one person stays awake, because help could take some time to arrive. Maintain circulation by moving your feet, hands, and arms.

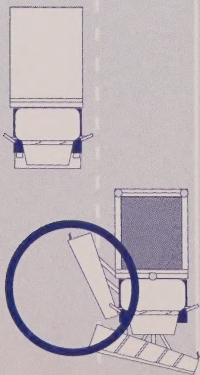
DID YOU KNOW . . .

Alcohol is not a good survival item and should never be part of your survival kit?
And remember: **NEVER** drink and drive!

Road-Ready and Weather-Wise

- Listen to the radio for road and weather updates and check conditions before leaving.
- Plan extra time to get to your destination and consider delaying your trip in bad weather.
- Always exercise caution and drive according to conditions.
- Watch for the flashing blue lights of snow and ice control vehicles. When approaching them from behind, slow down, stay back, and be patient.
- DO NOT PASS around or between them.
- Use the winter driving safety tips on the flip side of this booklet.

It is dangerous to pass a plow!



For road condition information, call:

MTO INFO

Provincial Call Centre:
1-800-268-4686

In GTA:

416-235-4686

Niagara Region TTY:
905-704-2426

Provincial TTY:
1-866-471-8929



OR on the Internet:
<http://www.mto.gov.on.ca/english/traveller/conditions/index.html>

Check conditions and exercise caution.



Changing Road Conditions

Throughout the winter, maintenance crews monitor weather and road conditions day and night, seven days a week. The crews report updated highway conditions a minimum of four times daily, as highway closures occur and conditions change. Despite the best efforts of snow and ice control crews, extreme weather may prevent the roads from being cleared quickly.

Road Closures

Extreme weather may result in the closing of roads. **Respect road**

closures and do not attempt to drive on these roads until they are re-opened. Always obey emergency road closing signs/barriers and follow the directions of any police officer. It's for your safety. Remember, it is against the law to drive on a closed highway.

Emergency Vehicles

Every day, police, fire, ambulance, and other emergency vehicles respond to urgent calls. Time lost getting to their destination could mean the difference between life and death. Seconds can save a life. Take flashing red lights and sirens seriously. Clear the way. Pull to the right and stop. It's the law.

Technological Improvements

The Ministry of Transportation is continually working on improvements in snow and ice control operations and on safe ways to reduce salt usage. Some technologies currently in use are:

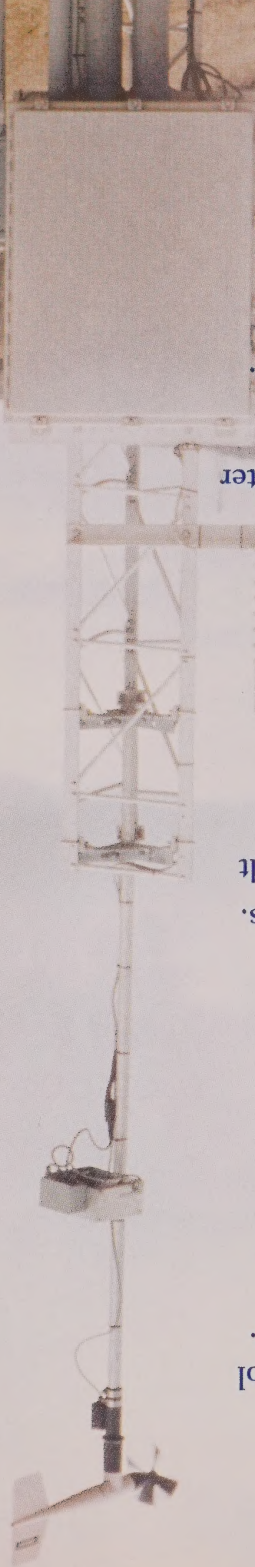
- De-icing liquids added to road salt to melt ice and snow faster. "Pre-wetted" salt also tends to stay on the road better and works at lower temperatures than dry salt alone.
- Road and weather information sensors to help staff and contractors make the best and most timely decisions on how to deal with winter conditions.
- Stationary automated anti-icing systems to prevent slippery conditions on selected bridges.
- Electronic control equipment for spreading salt and sand to ensure the correct amount is distributed.
- Real-time vehicle location systems to manage winter snow and ice control.

Contracting of Snow & Ice Control Services

The Ministry of Transportation contracts out its snow and ice control services, but sets the standards used by contractors. The ministry also monitors operations before, during and after winter storms. Contractors are closely scrutinized for compliance to standards. Penalties for non-compliance are severe, including loss of contract.

DID YOU KNOW . . .

The police have the authority to close highways? Sometimes the safest and best action is to close a highway until weather conditions improve enough to allow snow control operations to be carried out.



Snow & Ice Control Standards

Ontario's snow and ice control standards are consistent with the best practices used across North America. Traffic volumes and road type determine how quickly highways are serviced.

A severe or long storm may delay restoration to normal conditions, even with the best efforts of road crews. Plowing begins promptly after the onset of a storm, with priority given to main highway lanes. It may take up to eight hours for plows or sanders to reach all ramps and low-volume roads.

Snow and ice control standards indicate a specified time for roadways to be restored to normal conditions after a storm has ended. The standard varies depending on traffic volume and road type. For example, the standard is eight hours for highways. Some roads with the lowest volumes are maintained in snow-packed conditions throughout the winter.

Traffic volumes
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serviced.



Providing Traction

Sand is used to provide traction on slippery surfaces. Unlike salt, it does not melt snow and ice.

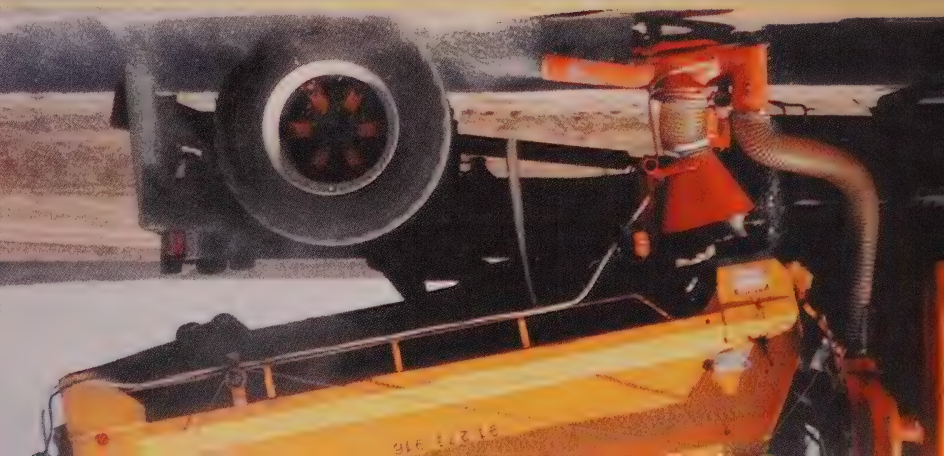
Sand is used most often when temperatures are too low for salt to be effective. Sand is also used at higher temperatures if traction is required immediately, particularly on hills, curves, bridges, intersections, and snow-packed roads. Extra caution should be exercised when driving in these road conditions.

DID YOU KNOW . . .
The effectiveness of road salt is reduced greatly when temperatures fall lower than -12°C ? This is why bare pavement is hard to achieve below -12°C .

Sand

Salt

-12°C



Melting Snow and Ice

Road salt is one of the most effective snow and ice control materials available. Timely application of salt will prevent snow and ice from bonding to the road surface. For this reason, salt is often spread early in a storm to prevent snow buildup and to aid in snow removal operations. In some areas, liquid anti-icing material is applied directly to the pavement to prevent frost and black ice.

Road salt, assisted by the sun, traffic, and warmer daytime temperatures, is also used as a melting agent to eliminate ice or packed snow. You may notice that salt is often applied in a narrow strip along the centre or high point of the highway. This provides a salt-water mixture, which flows across the roadway, ensuring the most efficient and effective use of the material.

The Ministry of Transportation recognizes the importance of effective salt management and employs the most up-to-date practices available. The ministry continues to investigate ways to control and reduce salt usage, while ensuring highway safety.

Sand and salt
play a big role
in keeping
roads safe.



Plowing

Echelon plowing is the practice of staggered snowplows operating across all lanes of a roadway. Though sometimes annoying to drivers, it is the safest and most efficient snow removal method for multi-lane highways. Plowing in echelon clears all lanes at once by passing a ridge of snow from one plow to the next. It is extremely dangerous to pass either between or around these snowplows because of whiteout conditions and the ridge of snow being passed between plows.

DID YOU KNOW . . .
For effective operations, snowplows and salt or sand spreaders must travel at speeds considerably slower than the maximum speeds posted for highways? Please be patient and stay well back while snow and ice control crews are at work.



Adjusting to Winter Conditions

Ontario winters are challenging for motorists. They are equally challenging for Ministry of Transportation staff and contractors responsible for snow and ice control on our provincial highways.

Road user safety is a top priority of the Ministry of Transportation. Every effort is made to promote safe highway and to provide an efficient winter maintenance service for the public.

Weather conditions can be variable and unpredictable, placing extra demands on your vehicle and your driving skills. Take the time to ensure you are well prepared for winter roads and always adjust your speed to existing conditions.

Leaving Room for Plows

To do the job right, snowplows and salt and sand trucks must travel slower than regular traffic. Sight lines and visibility near a working snowplow are severely restricted by blowing snow, and passing can be dangerous. Remain at a safe distance when you see the flashing blue lights of these vehicles.



Stay well
back to help
snowplows do
their job.

Snow & Ice Control



On Ontario's Highways